

Rehabilitation of Bridge No. 02132

Project No. 0136-0072

Town of Sterling

Route 14A over Cedar Swamp Brook



Connecticut Department of Transportation



Project Location



Bridge From West Approach



Connecticut Department of Transportation



Bridge From East Approach



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North Elevation



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South Elevation



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West Abutment



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East Abutment



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North Wingwalls



Northeast Wingwall



Northwest Wingwall

South Wingwalls



Southwest Wingwall



Southeast Wingwall

Existing Bridge Information

- **Original structure constructed in 1928**
- **Structure Type**
 - Single span cast in place concrete slab over masonry abutments.
- **Dimensions**
 - Curb-to-Curb Width: 28 ft.
 - Out-to-Out Width: 30.7 ft.
 - Total Structure Length: 25 ft.
- **Service**
 - Carries route 14A over Cedar Swamp Brook with one lane of traffic in each direction
 - Estimated Average Daily Traffic is 2000 Vehicles (3% truck) (2015)
- **Schedule: FDP: 07/12/17 ADV: 09/20/17**
- **Anticipated Construction Start: Summer of 2018**



Typical Underside of Deck



Connecticut Department of Transportation



Superstructure Deterioration

Reinforced Concrete Slab

- Large spalls with exposed rebar up to 36 sq. ft. by 4" deep and up to 25% section loss on the exposed rebar
- Hollow areas up to 24 sq. ft.
- Honeycombing up to 8 sq. ft.
- Efflorescence throughout

Total Deck Deterioration is Approximately 29%

Current Inspection Ratings

Section	2013	2015
Superstructure	4	4
Substructure	6	6



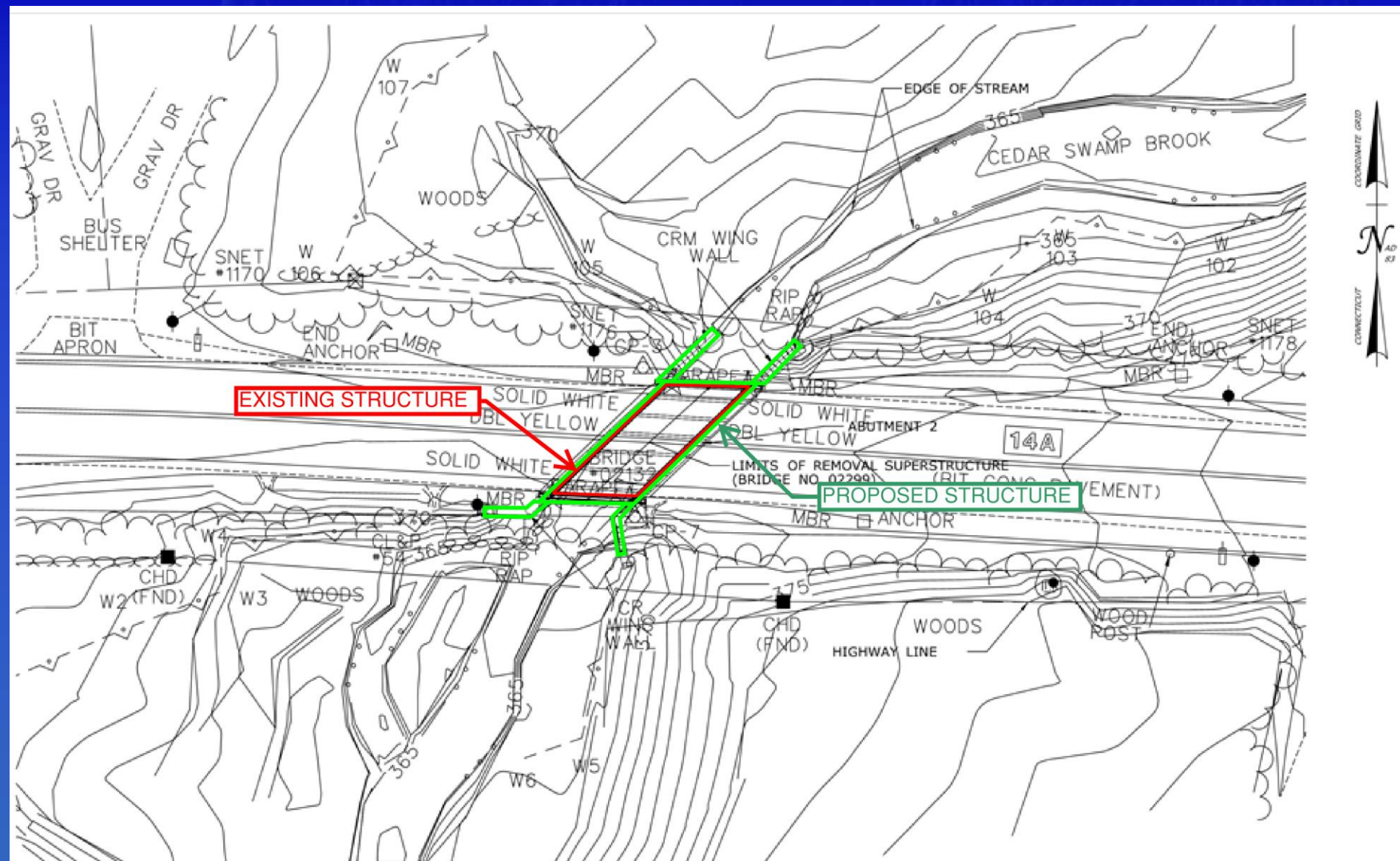
Proposed Project Scope

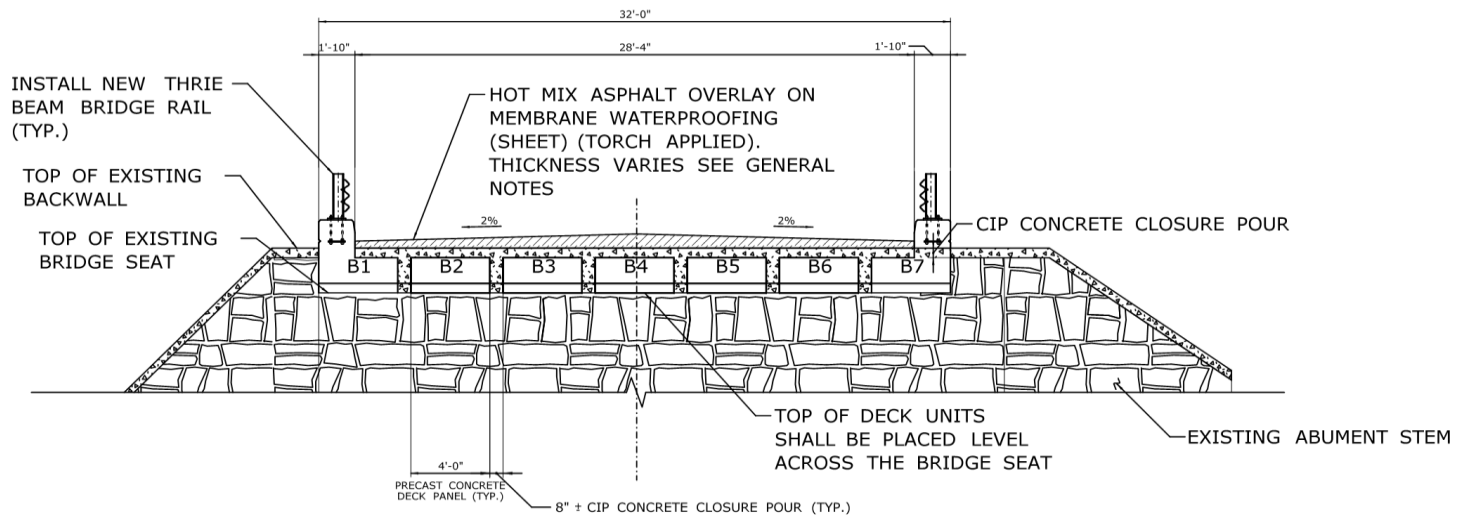
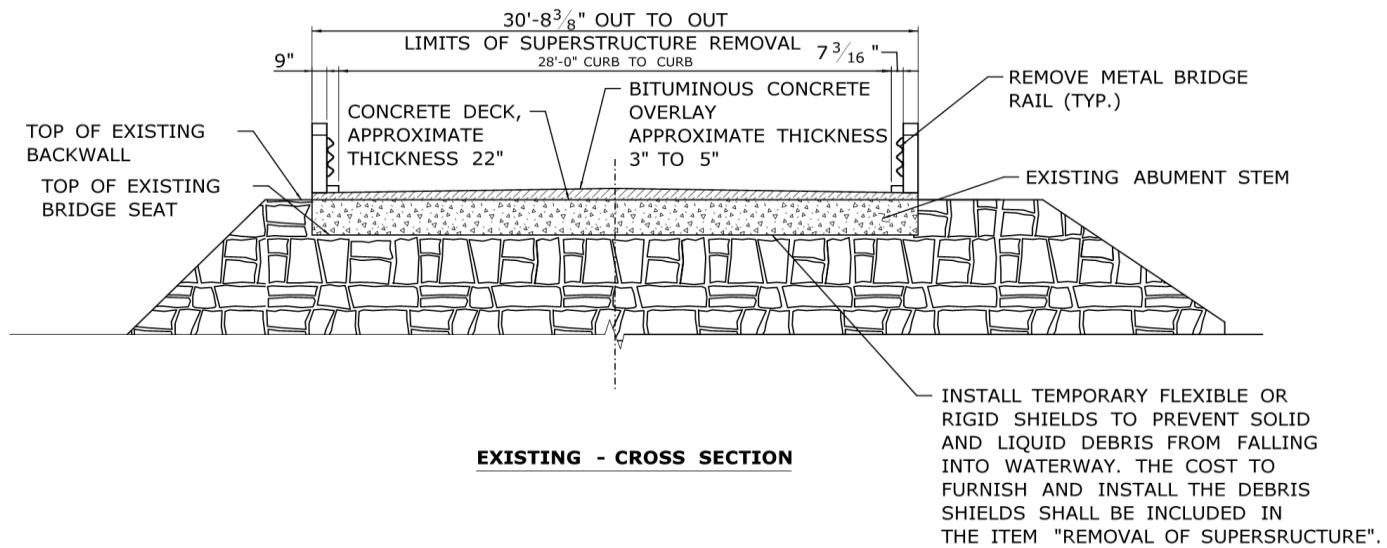
Superstructure Replacement

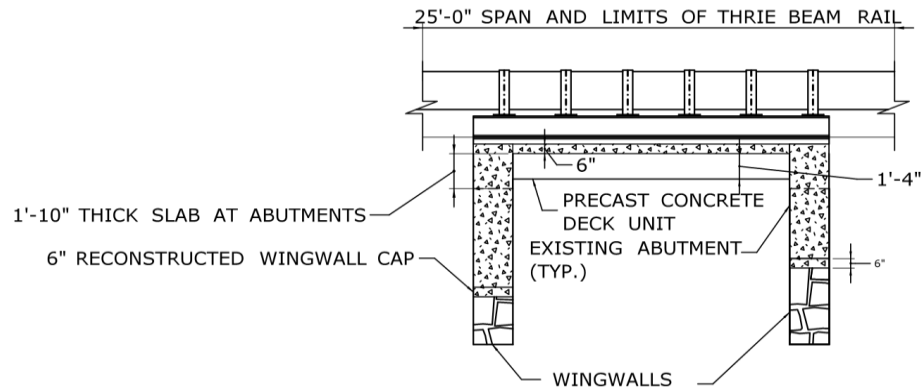
- **Remove the existing superstructure**
- **Install 7 prefabricated deck panels (4' wide x 25' long)**
- **A 6" thick deck will be poured to lock in panels**
- **Road will be repaved and reopened**



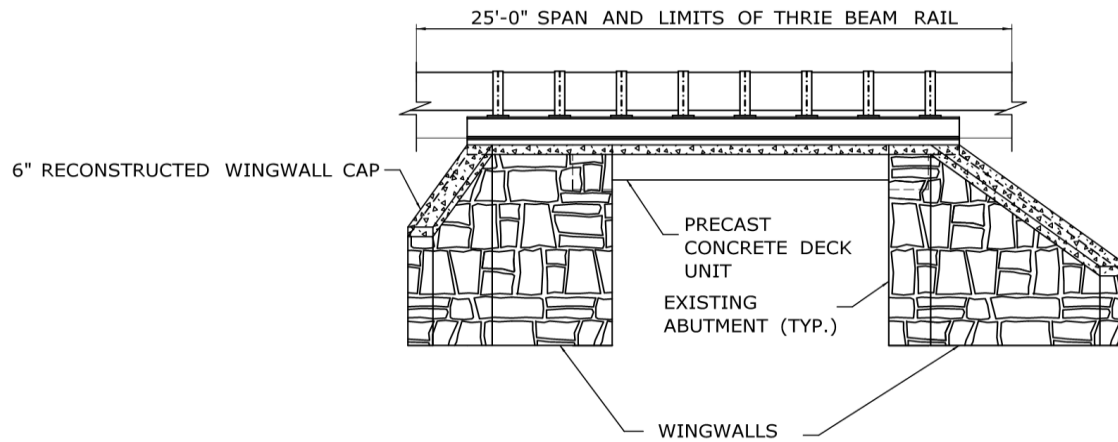
GENERAL PLAN - BRIDGE NO. 02132



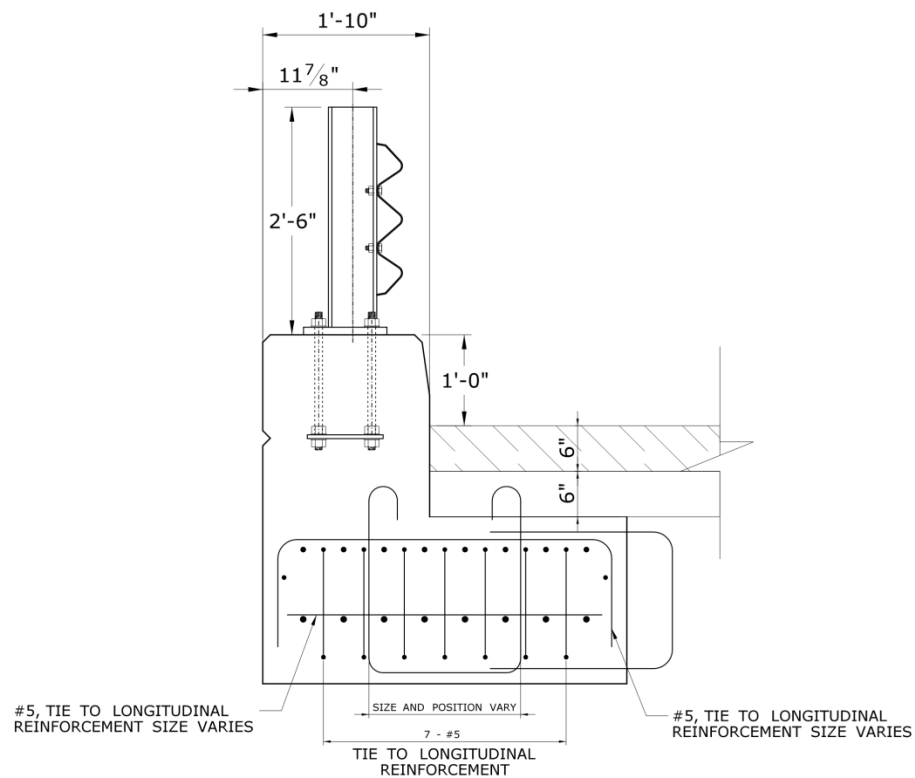


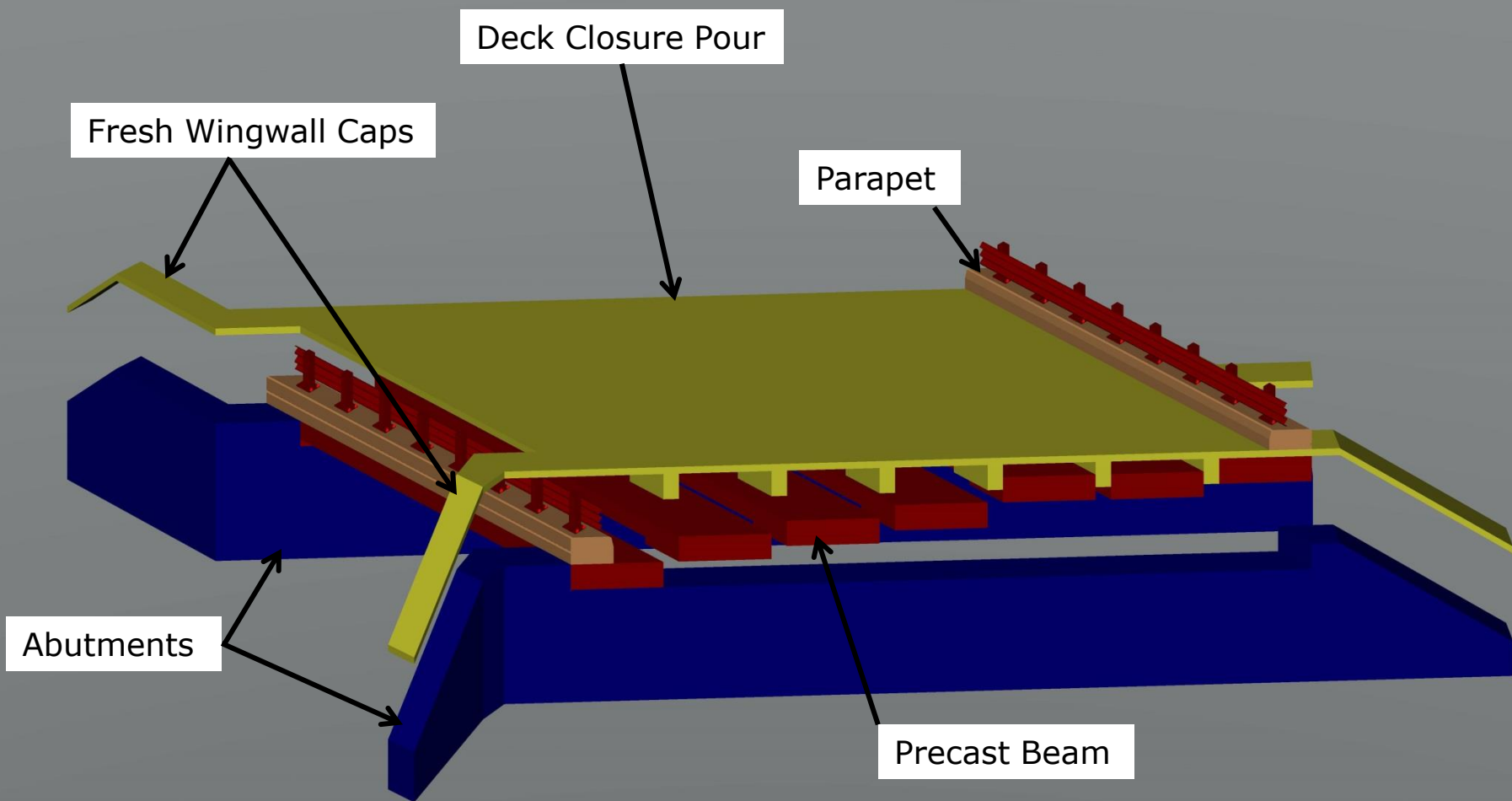


FINAL - NORTH ELEVATION



FINAL - SOUTH ELEVATION





Department of Transportation
Division of Rights of Way
(ROW)

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Function

- **Acquire all property/property rights necessary for transportation projects.**



Statutory References

- **State of Connecticut**

C.G.S. Sections 13a-73 & 13a-98e

- **Federal**

Uniform Relocation Assistance and Real Properties Acquisition Act of 1970, as amended.



Property Impacts

- **Total Acquisitions**
- **Partial Acquisitions**
- **Easements**
- **Construction Easements**
- **Rights**

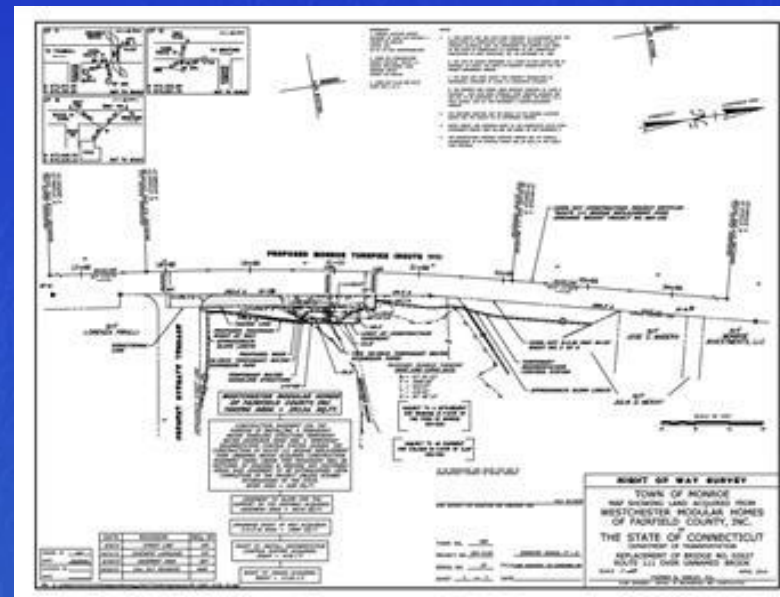


*** Note: Specific impacts are subject to change as the design progresses.**



ROW Acquisition Process

- Letter of Intent to Acquire
- Valuation
- Offer of Just Compensation
- Negotiation
- Acquisition
 - Agreement
 - Eminent Domain/Condemnation
 - » 6 month appeal period



Timing for Acquisitions

- **All property rights must be acquired by the project advertising date.**
- **Current Advertising Date:
9/20/2017**



Project Cost

- Total estimated project cost is approximately \$1,500,000**
- Construction funding: 100% State Funds**
- No Town funds required for the project**



Project Schedule

Schedule

- **Construction is anticipated to begin in Summer 2018 and end in the fall of 2018 (one construction season)**

Construction Method

- **Accelerated Bridge Construction (ABC)**
- **Maximum 8 weeks Detour (Note: Alternating one way traffic will be required)**



Environmental and Historical Considerations

Anticipated Permits for the Project

- **FMC – Flood Management Certification**
- **IWGP – Inland Wetland General Permit**

No Historical Properties Affected

- **Under Section 106 of the National Historic Preservation Act**



Utility Considerations

- **Overhead utilities are present at the bridge location:**
 - **Electrical**
 - **Telecommunications**
 - **Cable TV**
- **Project work that includes utility relocations will be performed prior to the closure of the bridge and after its reopening.**



Aerial Utilities



Connecticut Department of Transportation



Traffic Considerations

ADT at Bridge 02132 is 2000 vehicles per day with 3% truck traffic

Prior to Detour

- **Off-peak lane closures are required to accommodate utility relocations**

During Detour

- **Major construction activities will take place during 8 weeks detour (demolition, replacement of superstructure and deck casting)**

After Detour

- **Open the bridge to traffic. If required, off-peak lane closures will be utilized to perform minor construction activities (guiderail, final grading and pavement)**



Proposed Detour Route

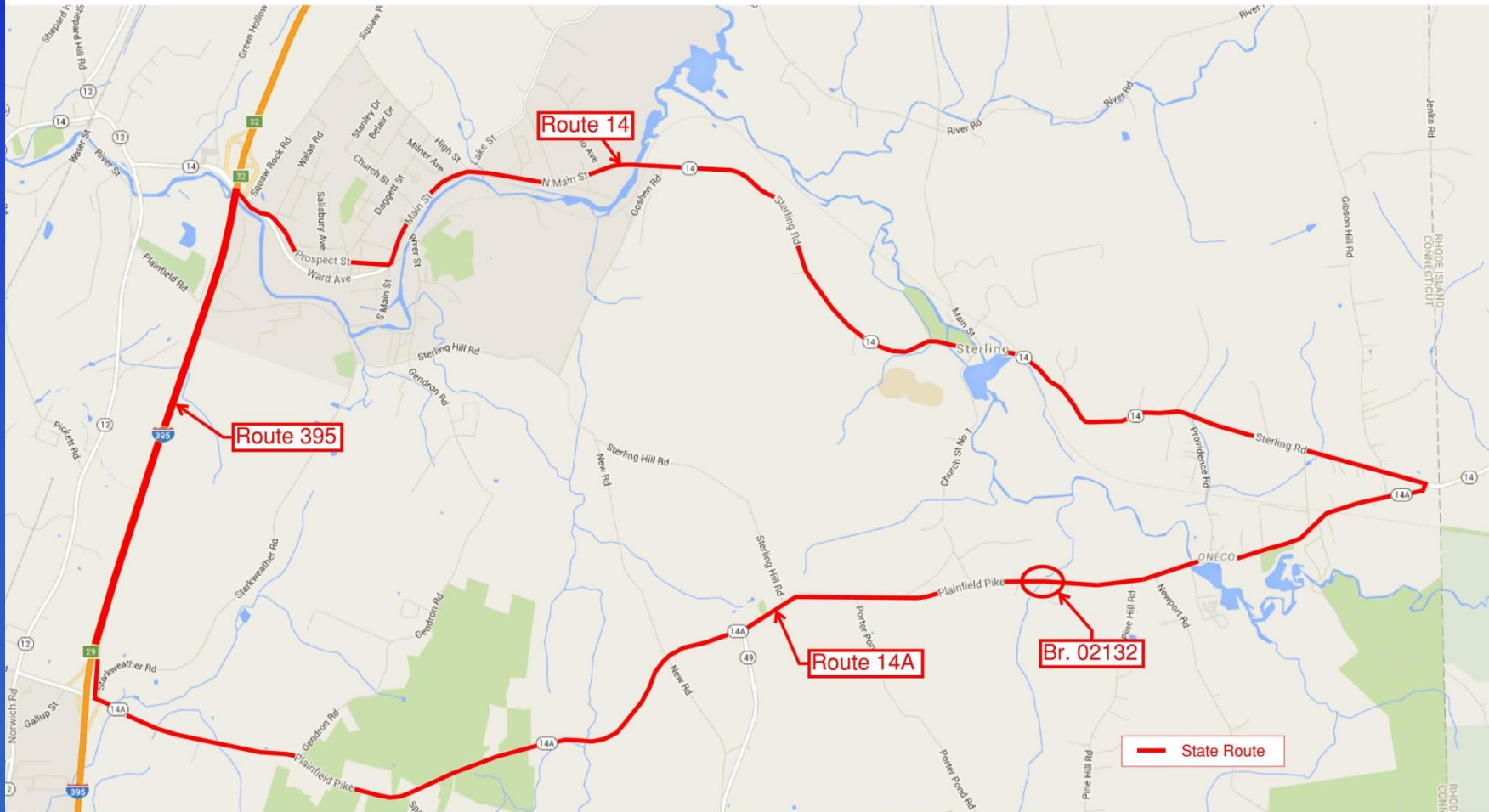
- **Detour Route: Route 14A (Plainfield Pike) to Route 395 and Route 14 (Sterling Rd.)**
- **Proposed Detour Time Frame: 8 Weeks**
- **Detour Length is approximately 15.6 miles**



State Detour Route

- **Route 14A, 14 and 395**
- **15.6 miles**

Proposed Detour Route



State Project No. 0136-0072
Rehabilitation of Bridge 02132

Route 14A over Cedar Swamp Brook
Town of Sterling

Contact Information

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THANK YOU FOR YOUR TIME

**QUESTIONS?
COMMENTS?**

